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H&E and Immunohistochemistry (IHC) Staining

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Protocol status: Working

We use this protocol and it's working

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Abstract

H&E and Immunohistochemistry (IHC) Staining for MTS and BRC tissue.

Materials

- MWC-chips
- PBS
- HACS technology
- Centrifuge
- Agar
- Paraformaldehyde
- Ethanol
- Citrate Unmasking Solution (Beyotime)
- Antibodies against ER, PR, HER2, Ki-67 (Proteintech)
- BSA solution
- Diaminobenzidine (DAB) (Solarbio)
- NanoZoomer S210 microscope (Visiopharm, Denmark)

H&E and Immunohistochemistry (IHC) Staining

- 1 Wash MTSs from MWC-chips with PBS and sort using HACS technology.
- 2 Collect MTSs through centrifugation at 1,200 rpm and 4 °C for 10 minutes.
- 3 Wash with cold PBS and embed MTSs in agar.
- 4 Fix agar-embedded MTSs and primary tumor tissues overnight in PBS with 4% paraformaldehyde.
- 5 Perform paraffin-embedding, sectioning, and H&E staining.
- 6 Dewax and rehydrate paraffin-embedded MTSs or BRC tissue sections through a graded ethanol series.
- 7 Perform heat-mediated antigen retrieval with Citrate Unmasking Solution.
- 8 Block sections at room temperature for 1 hour.
- 9 Perform IHC staining overnight at 4 °C with antibodies against ER, PR, HER2, Ki-67.
- 10 Dilute antibodies in a ratio of 1:200 in 3% BSA solution.
- 11 Use DAB to achieve optimal staining intensity.
- 12 Visualize stained tissues using the NanoZoomer S210 microscope.